

Southern Boulevard OPEN SPACE INDEX



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On the cover: Starlight Park

Letter from the Executive Director

Southern Boulevard is a major commercial street in the South Bronx, and it is now the name of an area that New York City's Department of City Planning is studying for a potential large-scale rezoning. The study area encompasses sections of Bronx Community Districts 2 and 3, or the neighborhoods of Crotona Park East and Longwood.

In 1977, President Jimmy Carter visited this part of the South Bronx to show the nation what urban blight looked like; in 1997, President Bill Clinton took a tour to show how things were turning around for the better. In 2018, the Southern Boulevard study area is home to about 44,000 New Yorkers, many of whom still face an uphill battle in life. Compared to the city as a whole, Bronx Community Districts 2 and 3 lag far behind citywide averages for an array of socioeconomic, health, and safety indicators. On the flip side, the South Bronx has a long history of community organizing and grassroots advocacy: people here are used to banding together and doing for themselves without help from outsiders. Today, these communities are on the cusp of being swept up in the tides of change that are transforming New York City. For better or for worse, a large-scale rezoning has the potential to transform these neighborhoods.

The Southern Boulevard Open Space Index is written for an audience of community members and local stakeholders, as well as elected officials. As these neighborhoods grow and change, it is our hope that the Open Space Index can serve as a resource for protecting and improving the parks and open spaces in the Southern Boulevard area.



Residents and open space advocates from Jackson Heights in Queens to the Lower East Side in Manhattan have used data provided in our *Open Space Index* series as a base for local movements and successes for local parks. In East Harlem, it was used to inform the vision created in the *East Harlem Neighborhood Plan*. Understanding how well parks, gardens, and open spaces are serving today's residents will underpin public participation in plans for the next era. We recommend a range of actions that will contribute to the South Bronx's continued social, health, and economic development.

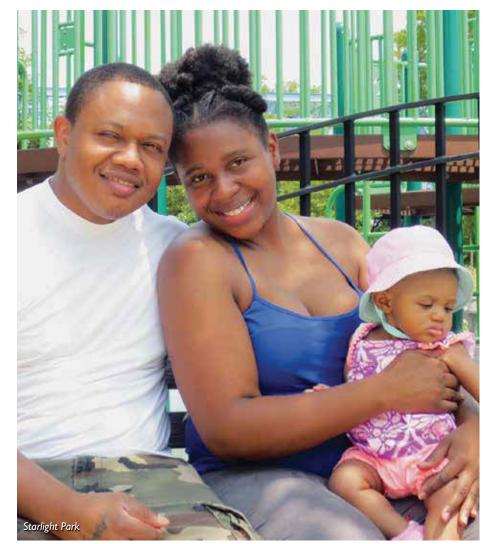
Guided by our *Public Realm Bill of Rights*, our research informs the outreach and advocacy work we do. The next step in our work in the Southern Boulevard area is with our South Bronx partners to promote public participation in decision-making processes. We'll reach out to establish relationships with more organizational stakeholders, so that our findings and open space recommendations can contribute to a wider range of advocacy. If and when the City presents a proposed rezoning plan for the Southern Boulevard area, New Yorkers for Parks will be ready to lend our voices and our expertise as citywide champions for parks and open space.

Lynn B. Kelly, Executive Director

About Southern Boulevard

The Mayoral administration of Bill de Blasio is comprehensively rezoning a series of neighborhood-level areas as part of a strategy to protect and develop affordable housing in New York City.¹ Although focused on providing housing, these zoning proposals and the studies that precede them are opportunities to consider parks and open spaces as part of the infrastructure that creates liveable, equitable neighborhoods.

The New York City Department of City Planning (DCP) is studying studying an area of the South Bronx area in preparation for one such potential rezoning proposal. Called the Southern Boulevard Study Area, it includes parts of multiple neighborhoods, centering on Crotona Park East and Longwood.² According to DCP, "the study will identify opportunities to protect and increase affordable housing, strengthen retail and local businesses, increase pedestrian safety and walkability, and improve community resources, all of which will support the long-term sustainability of the area."³ At the time this report was written, DCP was in a "Listen and Learn" phase and had not yet recommended any zoning changes. New Yorkers for Parks created this report to contribute to local planning and public participation efforts to meet this official scrutiny.



2 Because the study area does not entirely correspond to any other administrative unit, the background information discussed in this section is based primarily on data from Community District 3, and secondarily from Community District 2.

3 New York City Department of City Planning. (n.d.). Southern Boulevard Neighborhood Study. Retrieved from https://www1.nyc.gov/site/planning/plans/southern-blvd/southern-blvd.page

1 Office of the Mayor, City of New York. (2014). Housing New York. Retrieved from http://www.nyc.gov/html/ housing/assets/downloads/pdf/housing_plan.pdf

Southern Boulevard

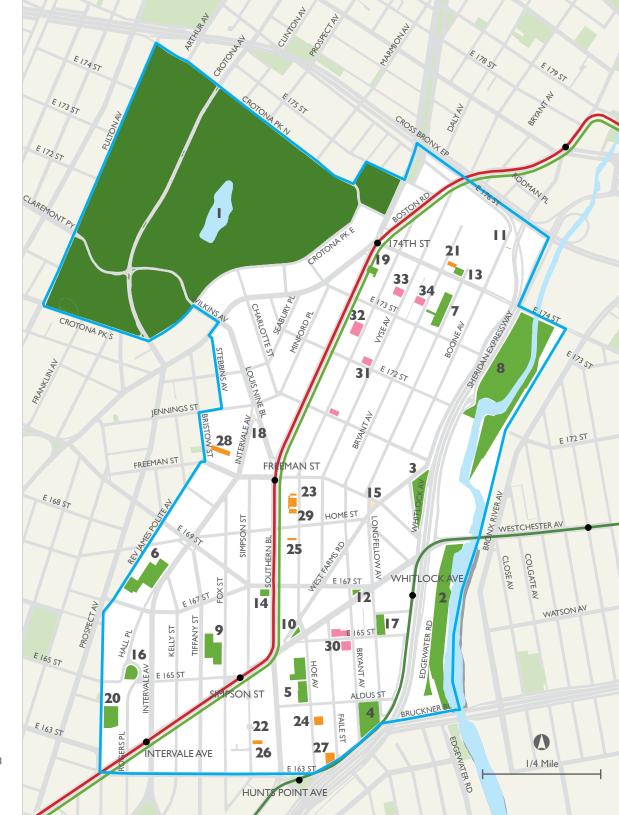
- Southern Boulevard Study Area
- Bronx River and Indian Lake
- MTA 2 Subway Line
- MTA 5, 6 Subway Line
- LARGE PARKS (More than 20 acres)
- I. Crotona Park
- NEIGHBORHOOD PARKS
 - (1 to 20 acres in size)
- 2. Concrete Plant Park
- 3. Daniel Boone Playground
- 4. Lyons Square Park
- 5. Printer's Park
- 6. Rev. J. Polite Playground
- 7. Rock Garden Park
- 8. Starlight Park
- 9. Tiffany Playground
- POCKET PARKS AND GREENSTREETS (Less than 1 acre)
- 10. Benjamin Gladstone Square
- II. Boone Slope
- 12. Bryant Triangle / Hayes Square
- 13. Eae J. Mitchell Park
- 14. Field of Dreams Park
- 15. Freeman Triangle
- 16. Horseshoe Park
- 17. Longfellow Gardens Playground
- 18. Plaza
- 19. Seabury Park
- 20. Stebbins Playground

COMMUNITY GARDENS

- 21. Angie Lee Gonzalez Garden / Bronx Sunshine Garden
- 22. Guadalupe Community Garden
- 23. Hoe Avenue North Tot Lots / Morning Glory Garden
- 24. Hoe Garden
- 25. Jose Gonzalez House Community Garden
- 26. Libertad Urban Farm
- 27. Mildred T. Rhodebeck Garden
- 28. Model T Senior Citizens' Garden
- 29. Synergie Urban Garden
- NYCHA Open Spaces
- 30. E 165th St & Bryant Ave
- 31. E 172nd St & Vyse Ave
- 32. E 173rd St & Hoe Ave
- 33. E 174th St & Bryant Ave
- 34. Jennings St & Hoe Ave



- Southern Boulevard Study Area
- Community Board 3
- Community Board 2
- Bronx Council District 17
 - Bronx Community Boards I, 4-12
- Bronx Council Districts 8, 11-16, 18





Existing Conditions and Locally-Defined Needs

Forty years ago, the South Bronx was a national synonym for urban decay. Decades of misguided urban planning and racially-motivated disinvestment created an area "eviscerated by highway projects, poverty, public health crises, and crime."⁴ Entire blocks were abandoned and destroyed by fire as people fled the worsening conditions.⁵ This downward spiral was eventually halted and slowly reversed by determined residents and community leaders, who rallied together to save their neighborhoods—literally rebuilding and rehabilitating the housing and other buildings in the area, as well as reclaiming vacant lots as community gardens and park spaces.⁶

Today, thanks to these efforts, the area is almost entirely restored and repopulated. Community District 3 summarizes the revival in numbers: "Overall, the district has experienced a 50% increase in its population from 1980, largely the result of an unprecedented increase of 8,457 units of new residential housing, and the preservation of an additional 9,036 units since [1990]."⁷

4 Hughes, C. J. (2008, Oct. 24). Out of Blight, a Step-Up Neighborhood. New York Times. Retrieved from http://www. nytimes.com/2008/10/26/realestate/26livi.html

5 Fernandez, M. (2007, Oct. 5). When Presidents Visited the South Bronx. New York Times. Retrieved from https://cityroom. blogs.nytimes.com/2007/10/05/when-presidents-visited-thesouth-bronx/

6 Christie, L. (2009, Nov. 25). The greatest real estate turnaround ever. CNN Money. Retrieved from http://money.cnn. com/2009/11/09/real_estate/greatest_neighborhood_turnaround/

7 Bronx Community District 3 FY2018 Statement of Community District Needs, at 3. About 44,000 people currently live within the study boundaries. Thirty-four percent of the population is under age 18, which is much higher than the citywide average of twenty-two percent.⁸ In keeping with the Bronx as a whole, a majority of the residents identify as Hispanic.

Despite its impressive rebound since the 1970s, however, the South Bronx is still home to several of New York City's "havenot" neighborhoods. Community Districts 2 and 3 lag far behind citywide averages for an array of socioeconomic, health, and safety indicators.⁹ Both community boards have identified programs and facilities for youth and public health among their most urgent priorities.¹⁰

8 Derived from 2011-2015 American Community Survey

9 See 2015 NYC Department of Health Community Health

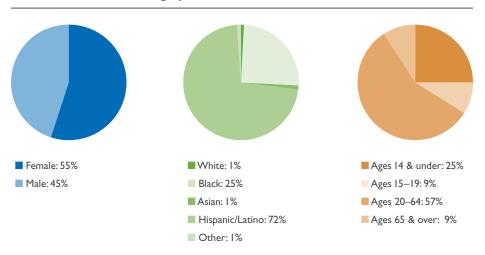
10 See Statements of Community Needs for Community

5-Year Estimates at the block group level x

Profiles.

Districts 2 and 3.

Southern Boulevard Demographic Information¹¹





11 All figures derived from 2011-2015 American Community Survey 5-Year Estimates.

Socioeconomic Conditions¹²

In the Southern Boulevard area, relative to New York City as a whole, educational attainment is low and poverty and unemployment rates are high. Well over a third of adults in Community Districts 2 and 3 never finished high school, and there are more unemployed adults than adults with college degrees. Children and teenagers in the area face obstacles as well—a third of elementary school students are missing more than 20 school days each year, and the teen birthrate is nearly double the citywide average.

Economic conditions in the area are similarly difficult. More than half of the households in both districts received Supplemental Nutrition Assistance Program (SNAP) benefits in 2015. Over 40% of the population lives below the federal poverty line, and around 60% of residents are rent-burdened (meaning they spend more than a third of their income on housing).

All of these stressors together correlate with increased crime and violence: the area's assault-hospitalization rate is more than double the citywide rate, and Community District 3 has the highest adult incarceration rate in the city.

Socioeconomic Conditions	Community District 3	Community District 2	The Bronx	New York City
Less than High School education (adults 25 years and older)	38%	45%	30%	4%
College Graduate (adults 25 years and older)	18%	14%	25%	84%
Teen Births (per 1,000 girls aged 15-19)	43.1	44.9	34.4	23.6
Elementary School Absenteeism (students missing 20 or more school days per year)	32%	36%	29%	20%
Received Food Stamps/SNAP benefits in past 12 months (% of households) ¹³	52%	54%	37%	20%
Below Federal Poverty Line (\$24,250 for a household of 4)	44%	43%	31%	21%
Unemployment Rate	20%	16%	16%	11%
Rent-Burdened (more than 30% of household income spent on housing)	61%	59%	58%	51%
Non-fatal assault hospitalizations (per 100,000 population)	166	138	115	64
Jail Incarceration (per 100,000 adults 16 and older)	371	234	156	93



¹² All figures from 2015 NYC Department of Health Community Health Profiles, unless otherwise noted.

¹³ Data from 2011-2015 American Community Survey 5-Year Estimates, Table S2201.

Health Conditions⁴⁴

Overall life expectancy in the Southern Boulevard area is about 75 years, significantly less than the citywide life expectancy of 81 years.¹⁵ People who live in the Southern Boulevard area suffer from chronic conditions like obesity and diabetes at rates much higher than the rest of New York City, and also experience more acute outcomes requiring hospitalization. Residents are also less likely to have health insurance, which means they are less likely to receive preventative health care. It's more dangerous to be born in these neighborhoods, and residents are more likely to die from preventable causes, than compared to other parts of the city.

Health Conditions	Community District 3	Community District 2	The Bronx	New York City	
Obesity (% of adults)	35%	33%	31%	24%	
Diabetes (% of adults	16%	15%	14%	10%	
Alcohol-related hospitalizations (per 100,000 adults)	2,367	1,905	1,633	1,019	
Drug-related hospitalizations (per 100,000 adults)	3,130	2,218	١,76١	907	
No health insurance (% of adults)	23%	23%	22%	20%	
Health Outcomes	Community District 3	Community District 2	The Bronx	New York City	
Child asthma hospitalizations (per 10,000 kids ages 5-14)	89	88	72	36	
Adult asthma hospitalizations (per 100,000 adults)	769	619	508	249	
Adult diabetes hospitalizations (per 100,000 adults)	689	608	503	312	
Infant mortality rate (per 1,000 live births)	7.7	7.8	5.7	4.7	



14 All figures from 2015 NYC Department of Health Community Health Profiles.

15 Tavernise, S. & Sun, A. (2015, Apr. 28). Same City, but Very Different Life Spans. New York Times. Retrieved from https://www.nytimes.com/interactive/2015/04/29/health/lifeexpectancy-nyc-chi-atl-richmond.html

Safety Conditions¹⁶

Rates for all crimes have decreased dramatically in the area since 2001, as they have throughout New York City's five boroughs. However, major felony crimes still occur in Community Districts 2 and 3 at a higher rate than for the city as a whole.

In 2017, 34 incidents of major felony crime were recorded in parks within the study area. 32 of these incidents (largely assaults, robberies, or grand larcenies) occurred in Crotona Park, with the remaining two occurring in Starlight Park and Concrete Plant Park. That does not make these parks particularly dangerous places, but any report of violent crime in parks can have outsize effects on local perceptions of park safety, and consequently, on park usage. To give some context, 34 crimes is about 1.5% of the total number of major felony occurrences in both districts, whereas parks take up about 7% of Community District 2's land area and 20% of Community District 3's land area. There are far fewer crimes reported for parkland than for non-parkland areas in both of these districts.

Socioeconomic Conditions Felony Crime Category ¹⁷	Community District 3 Incidents per 1,000 Residents in 2017 ¹⁸	Community District 2 Incidents þer 1,000 Residents in 2017 ¹⁹	New York City Incidents per 1,000 Residents in 2017	Incidents in Southern Boulevard Parks in 2017
Murder	0.1	0.0	0.0	0
Rape	0.4	0.4	0.2	I
Robbery	3.0	2.4	1.9	8
Felony Assault	5.4	5.1	2.6	15
Burglary	2.3	2.4	1.6	I
Grand Larceny	5.0	5.2	5.4	8
Grand Larceny of Automobile	1.2	1.2	0.7	I
Total	17.3	16.6	12.4	34

17 These specific crimes are used as benchmark statistics by the FBI and local law enforcement, because they are serious crimes which occur regularly throughout the nation and are likely to be reported to the police. For more information, see: U.S. Department of Justice, Federal Bureau of Investigation. (Jan 26, 2017). UCR Offense Definitions. https://www.ucrdatatool.gov/offenses.cfm.

18 Population numbers used to calculate the crime rate per 1,000 residents come from the 2010 Census, which is the most recent population statistic available by Community District. As the population of both districts has likely increased since 2010, actual crime rates may be lower than what is shown here. However, these numbers serve as a reasonable basis for comparison with the city's overall crime rate. 19 See note above.



¹⁶ All figures from NYPD CompStat, 2017 quarterly figures. Community District 3 corresponds to NYPD's 42nd Precinct, and Community District 2 corresponds to the 41st Precinct.



Open Space Goals and Local Results

For each Open Space Goal in the Index, NY4P staff gathered data from publicly-available sources to answer the question, "Does Southern Boulevard meet this goal?" Our information on population comes from the US Census's American Community Survey, and most open space amenity and acreage information comes from the New York City open data platform. A more detailed account of our analytical methodology, including the source for each goal, can be found in Appendix A.

We report results for the entire Southern Boulevard Study area, and also results that exclude Crotona Park, in which many open space acres and amenities are concentrated.

Meets goalApproaches goalDoes not meet goal

AMOUNT OF OPEN SPACE

Total Open Space



All acres of open space in the neighborhood that provide space for play, relaxation, and contact with nature

2.5 acres per 1,000 people

southern boulevard

EXCLUDING CROTONA PARK



Active Open Space



All acres of playgrounds, fields, courts, rec centers and other active open spaces

CITYWIDE GOAL

acre per 1,000 people

southern boulevard



Playgrounds



Places for play with things like swings, climbing frames, water features, sand boxes, or other play areas

CITYWIDE GOAL

per 1,250 kids

SOUTHERN BOULEVARD

8.6

EXCLUDING CROTONA PARK

5.1

Athletic Fields



Fields for sports like soccer, football, cricket, baseball, rugby, and field hockey, as well as ice rinks

CITYWIDE GOAL



2.5



Courts



Courts for playing sports like basketball, handball, volleyball, tennis, and bocce

CITYWIDE GOAL 5 per 10,000 people

6

SOUTHERN BOULEVARD

excluding crotona park 5.4

Recreation Centers



Indoor recreation centers operated by NYC Parks, and other indoor facilities with similar fees and public access

CITYWIDE GOAL

per 20,000 people

()

southern boulevard

EXCLUDING CROTONA PARK

Passive Open Space



All acres of lawns, esplanades, plazas, beaches, natural areas, planted areas, and community gardens

CITYWIDE GOAL

SOUTHERN BOULEVARD

3.0

EXCLUDING CROTONA PARK



Community Gardens



All GreenThumb gardens and other community gardens with public access

CITYWIDE GOAL

per 10,000 people



EXCLUDING CROTONA PARK



SOUTHERN BOULEVARD OPEN SPACE INDEX 🏶 🚺



Meets goal

Approaches goal

Does not meet goal

ACCESS TO OPEN SPACES

Pocket Parks



Parks smaller than 1 acre in size

CITYWIDE GOAL

southern boulevard

Neighborhood Parks



Parks larger than 1 acre but smaller than 20 acres in size

CITYWIDE GOAL

southern boulevard

Large Parks



Crotona Park

Parks larger than 20 acres in size



southern boulevard

ENVIRONMENTAL SUSTAINABILITY

Urban Tree Canopy



The layer of tree leaves, branches, trunks, and stems that cover the ground when viewed from above

47% potential tree canopy

southern boulevard



PARK MAINTENANCE

Cleanliness



NYC Parks' Park Inspection Program rating based on the presence of litter, glass, graffiti, weeds, and ice

Of inspections rated "acceptable"

southern boulevard

Overall Condition



NYC Parks' Park Inspection Program rating for overall park maintenance conditions

CITYWIDE GOAL

SOUTHERN BOULEVARD





Spotlight on Waterfront Access

The Southern Boulevard study area is bordered on the east by the Bronx River, which has been a locus of community activism for two generations. Named for an early landowner, Jonas Bronck, "Bronck's River" lent its name to the borough. It is New York City's only freshwater river, running from northern Westchester County to the East River. Before the environmental laws of the 1960s and 70s, the Bronx River—like many urban waterways—had been used as an open sewer and industrial dumping ground for over a century.²⁰

Community groups like Youth Ministries for Peace and Justice, the Point CDC, and Nos Quedamos have worked for decades to clean up the Bronx River and reclaim the waterfront for public use. In the last ten years, two new neighborhood parks along the river's western shore, Concrete Plant Park and Starlight Park, were created as a result of local advocacy. They provide vital local park acreage and form links in the Bronx River Greenway, a path planned for the river's entire 23-mile length.²¹ Slowly but surely, South Bronx residents are regaining access to the river, and the river is regaining health and vitality as an ecosystem. Institutions are also growing to support this post-

20 Bronx River Alliance. (n.d.). Natural and Social History. Retrieved from http://bronxriver.orgl?pg=content&p=abouttheriver&m1=9

21 Bronx River Alliance. (n.d.). Greenway. Retrieved from http://bronxriver.org/?pg=content&p=aboutus&m1=1&m2=3 industrial ecological revolution, including the Bronx River Alliance, which will occupy the new River House in Starlight Park.

Yet access to the South Bronx's new waterfront parks is far from simple. The Bronx bears the scars of Robert Moses-led planning projects in housing and highways. Moses's Sheridan Expressway effectively cuts all but the most determined Bronxites from waterfront park access, but is used by fairly few vehicles. Local residents and community groups have long advocated for the Sheridan to be narrowed and converted into a local street, or even demolished entirely. In early 2017, Governor Cuomo and the New York State Department of Transportation announced two projects for the Sheridan Expressway area.²² One will convert most of the Sheridan into a boulevard with sidewalks, traffic lights, and pedestrian crossings, while the second will create new ramps for truck access to the Hunts Point food distribution center.²³

The State's plans differ significantly from local priorities, leading to strong community opposition. The State does not reduce the Sheridan right-of-way width, whereas the community plan shrinks the roadway in order to make land on the waterfront side available for development. Furthermore, the State's proposed location for the main truck ramps into Hunts Point impedes waterfront access and endangers pedestrians, whereas the community plan routes traffic through an industrial part of the Hunts Point peninsula. At the time of publication, the final plan is still a point of contention, but construction is scheduled to begin in the fall of 2018.

Waterfront access, and usable, vibrant waterfront open spaces is a goal that South Bronxites are still working towards, alongside other pieces of infrastructure that create truly liveable and equitable communities.

Southern Boulevard

- Southern Boulevard Study Area
- Bronx River
- Parks
- Community Gardens
- NYCHA Open Spaces



22 The "Arthur Sheridan Enhancement Project" and the "Hunts Point Interstate Access Improvement Project"

23 Savitch-Lew, A. (2017, July 26). South Bronx Advocates Say State's Sheridan Expressway Plan Must Go Farther. City Limits. Retrieved from https://citylimits.org/2017/07/26/ governors-plan-for-sheridan-expressway-must-go-farther-advocates-say/



Southern Boulevard Open Space Usership

New Yorkers for Parks advocates that every New Yorker should have access to quality open space in their own neighborhood. A significant part of that is equity in maintenance and improvements—parks should be kept in equally good condition no matter where they are located in the city. To compare parks in this way, we need three kinds of information: each park's condition and quality, resources spent on each park, and the level of park usage. Without all three of these variables accounted for, the picture is incomplete. For example, parks of all sizes are supposed to be kept up to the same standards, but a small park that is heavily used may take as many person-hours to maintain as a larger but less used park.

NYC Parks conducts periodic inspections of cleanliness and overall condition for every park property, and publishes that data on an ongoing basis.²⁴ The department has also recently begun publishing an annual report detailing the amount of time and money spent on maintaining its parks.²⁵ Available data on park usage, however, is scarce—it is labor-intensive to collect and the process cannot be cheaply or easily automated.

25 New York City Department of Parks and Recreation. (2017). Annual Report on Park Maintenance, Fiscal Year 2017. Retrieved from https://www.nycgovparks.org/pagefiles/121/Annual-Report-on-Park-Maintenance-FY17_5a21bd33c8fed.pdf In Southern Boulevard, NY4P for the first time has collected park usership data at the neighborhood scale. The data is not a comprehensive record—rather, it is a snapshot of neighborhood park usage during certain hours (8 am to 6 pm) and a certain season (summer). This snapshot can nonetheless give us a reasonable idea of which parks are used comparatively more than others, what demographics are notably under- or overrepresented among park-goers, and what areas or features within parks are most popular.^{26, 27}

Overview of Methods

NY4P's user data collection is based on a modified form of SOPARC (System for Observing Play and Recreation in Communities).²⁸ NY4P surveyors 1) divided parks and open spaces into target areas according to function, and 2) recorded basic information about park users and what they were doing in each target area. During the summer of 2017, surveyors visited each park or open

27 McKenzie, T. L., Cohen, D. A., Sehgal, A., Williamson, S., & Golinelli, D. (2006). System for Observing Play and Recreation in Communities (SOPARC): reliability and feasibility measures. Journal of Physical Activity and Health, 3(s1), S208-S222

28 McKenzie, T. L., Cohen, D. A., Sehgal, A., Williamson, S., & Golinelli, D. (2006). System for Observing Play and Recreation in Communities (SOPARC): reliability and feasibility measures. Journal of Physical Activity and Health, 3(s1), S208-S222 space on three weekdays and one weekend day, with two observation periods per day at staggered times. Surveyors also took photos and recorded weather and park conditions at the times of their visits.

Surveyors were not able to collect complete usership data for Crotona Park due to the large size of the park, so it is excluded from the analysis. The data that NY4P collected can be aggregated for the whole neighborhood or broken down into a variety of categories.

Target Area Map Example, Daniel Boone Playground



²⁴ New York City Department of Parks and Recreation. (n.d.). Parks Inspection Program. Retrieved from https://www.nycgovparks.org/park-features/parks-inspection-program

²⁶ Cohen, D. A., Setodji, C., Evenson, K. R., Ward, P., Lapham, S., Hillier, A., & McKenzie, T. L. (2011). How much observation is enough? Refining the administration of SOPARC. Journal of Physical Activity and Health, 8(8), 1117-1123

Who Is (or Isn't) in the Parks?

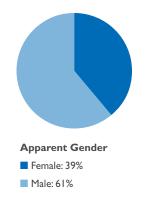
APPARENT AGE GROUP

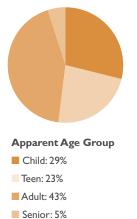
While about a third of the study area population is under 18, over half of park users appeared to be children or teenagers. This result is not surprising given that our survey was conducted during daylight hours in the summer-when many adults would be at work and schools were not in regular session. Our finding underscores the importance of parks and open spaces as spaces for young people to gather, play, and learn. Young children and their parents or caregivers were often observed in parks with playgrounds, and teenagers were commonly found in parks with basketball courts or soccer fields. NY4P surveyors also saw a variety of organized activities for children, including sports leagues, daycare outings, and the NYC Parks "Kids in Motion" program.

Fewer seniors were observed than we would expect from their general population share. There could be a number of reasons for this. Some parks may be difficult to access for people with mobility limitations, and hot weather may discourage seniors from spending time outside. Availability of programming and perceptions of safety may also have an impact on seniors' park use. No organized activities aimed at adults or seniors were observed in the parks during the study period.

APPARENT GENDER

Although the general population of the study area is more female than male (55% and 45%, respectively), we saw the opposite in parks: over 60% of park users appeared to be male. There were more males than females observed in all age groups and in all types of open space. This seems unlikely to be a coincidence.





We can only make educated guesses at the reasons for this gender differential. Although local perceptions of safety are often thought to influence female use of open spaces, park programming, design, and culture may actually have a greater influence on who uses parks.²⁹ Even though women and girls' participation in many sports has greatly increased since the passage of Title IX in 1972, many sports and outdoor activities are still perceived as more "masculine" and are therefore more popular among men and boys than women and girls.³⁰ If that is the case, increasing the rate of park usership among women and girls may entail finding out what activities do draw them to parks, and designing or programming open spaces accordingly-in addition to ensuring that local residents perceive parks to be safe places.

29 Cohen, D. A., Marsh, T., Williamson, S., Derose, K. P., Martinez, H., Setodji, C., & McKenzie, T. L. (2010). Parks

and Physical Activity: Why are some parks used more than

30 Schmalz, D. L., & Kerstetter, D. L. (2006). Girlie girls and manly men: chidren's stigma consciousness of gender in

sports and physical activities. Journal of Leisure Research, 38(4),

536-557; Koivula, N. (2001). Perceived characteristics of sports categorized as gender-neutral, feminine and masculine. Journal

others? Preventive Medicine, 50, S9-S12.

of Sport Behavior, 24(4), 377.

What Do People Do in the Parks? ACTIVITY LEVEL

Over half of the people observed in parks were sedentary-meaning they were sitting or standing. About a third of users were moderately active-for example, walking or climbing on a jungle gym. The remaining 14% of people were vigorously active-for example, playing an active sport, doing strength exercises, or running. These figures illustrate the wide range of social and recreational functions that parks serve.

Most Common Activities by Age Group

Children	Adults
Sitting	Sitting
Splashing	Walking
Walking	Standing
Standing	Basketball
Swing set	Actively Assisting
Climbing/Jungle gym	Garden work

Seniors

Sitting Walking

Standing

Teenagers

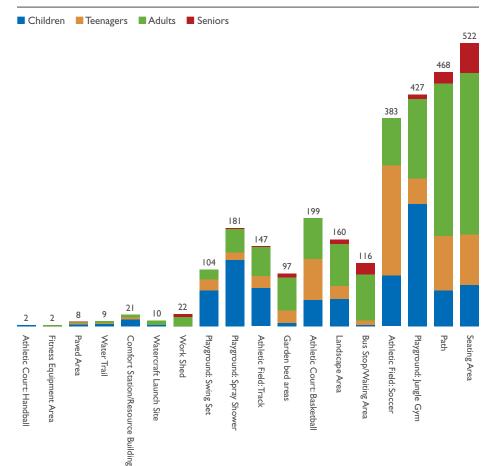
Sitting
Walking
Soccer
Standing
Basketball

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Swing set

Another way to look at what people were doing in the parks is to consider where they were in the park, because our park observations were sorted by functional areas. Generally, what park users were doing corresponded to the area where they were, with some exceptions—for example, no one was observed playing handball in any handball courts. The most popular features for park users in Southern Boulevard were seating areas, pathways, jungle gyms in playgrounds, and soccer fields. Understanding in-demand park features—and those that are not drawing a robust usership—allows community groups to envision and articulate place-based capital or programmatic changes to make existing open spaces work better.

Users by Feature and Age, all Parks



Which Parks Were Most Used? Which Least?

Generally speaking, the number of park users observed corresponded to the size of the park—bigger parks tended to have more users. A less obvious discovery was that density of use did not correlate with park size. On an acre-for-acre basis, small parks and open spaces in the Southern Boulevard area were often more heavily used than larger parks. Concrete Plant Park is more than five times the size of Tiffany Playground, but had a similar total number of users. This finding indicates that small green spaces and gardens are as important to a neighborhood as larger parks. Starlight and Concrete Plant Parks, two major local open spaces, are neither visible to casual users or easily accessible. They're cut off from the rest of the neighborhood by major truck routes and heavy car traffic, and don't have signage to lead people to them.

Every available park and open space in the Southern Boulevard area was in use at some point during NY4P's observation periods. The few open spaces where no users were ever observed were locked and inaccessible to the public, and were not included in final calculations.³¹

³¹ These inaccessible properties included Boone Slope, a fencedin hillside separating Boone Avenue and West Farms Road under NYC Parks jurisdiction, and two New York City Housing Authority (NYCHA) spaces. Additionally, two community gardens in the study area were locked during all surveyor visits, although they did appear to be actively used.

Individual Park Profiles

People have a variety of reasons for going—or not going—to any given park. While we can make general observations about the factors that contribute to any park's usership profile, each individual park has its own unique combination of those factors. To illustrate these trends and nuances, we looked at usership at a representative property of each type of open space.

NEIGHBORHOOD PARK: Printer's Park

Printer's Park is located near the southern edge of the study area. Spray showers and shade trees along the edges of the park make it an inviting oasis in the summer heat. However, the neglected central section of Printer's Park divides what should be a large open space into two smaller parks. An abandoned lot in the 1970s, this park is the result of community group recreational space rehabilitation in 1980s. It was turned over to NYC Parks in 1997. The northern section of the park primarily contains play features for children of different ages, along with a grass-covered hill. The southern section of the park has a unique playground structure mimicking the design of a printing press, in homage to the printer whose estate once included this site. The central area of the park is derelict: behind the fence, saplings and weeds push their way through the cracked and faded surface of a tennis court. What appears to be a private driveway divides the northern and central sections. In effect, about a quarter of the park's acreage is unusable.

Park design can have a strong effect on who uses (or who doesn't use) them. The area of Printer's Park which could potentially draw active users of all ages, the tennis court section, is unusable. The maintained and usable features of the park are mainly designed for children-the adults observed there were either supervising children or were gathered in the seating area. Unsurprisingly, the overall majority of users observed at Printer's Park were children, and most of them were using either the jungle gym or spray shower. This holds true for children throughout the study area—they were most frequently observed at playground features. NY4P surveyors saw few children at parks without playgrounds, unless they were part of an organized activity. Other neighborhood parks in the study area lack active recreational opportunities for adults and seniors.







Printer's Park Users by Park Feature

POCKET PARK : Horseshoe Playground

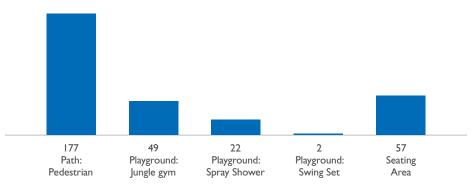
Horseshoe Playground is built into a steep hillside on East 165th Street. It has a blacktop area with a spray shower, swing set, two jungle gyms, and a comfort station. Outside the fenced-in play areas, there are tables and benches along the sidewalk. A step street on the southern side of the park is well-used as a pedestrian connector between the two sections of East 165th Street. Mature trees inside and around the park provide extensive shade in the warmer months. Because of the park's terraced structure, sight lines into the play areas are obstructed from most angles.

Of all pocket parks, Horseshoe Playground had the highest number of users recorded, though more than half of those were people using the pedestrian path rather than entering the rest of the park. Greenways and pedestrian/bicycle paths are an important part of park infrastructure—they provide opportunities for physical activity and neighborhood connectivity. Other than the pedestrian path, the most-used features were the jungle gym and the spray showers—like at Printer's Park, and other pocket parks in the study area, children and their adult caregivers were the primary user demographic. Horseshoe Playground is unique: because it has a working comfort station, it can serve a wider range of uses, and may be chosen by users more frequently than parks without sanitary facilities. NYC Parks offers its "Kids in Motion" program only in parks with comfort stations: Horseshoe Playground is a "Kids in Motion" site. Daycare groups were observed more frequently in parks with comfort stations. Horseshoe Playground is also a distribution site for the city's Summer Meals program, which provides free lunches to school-age children and teenagers during the summer.









COMMUNITY GARDEN: Model T Senior Citizen's Garden

Model T Senior Citizen's Garden is a lush green sanctuary tucked into a long, narrow lot next to P.S. 134. Despite the name, people of all ages can be found enjoying and working in the garden. It's a longtime site for GrowNYC's "Learn It Grow It Eat It" internship program for high school students. According to a garden volunteer, elementary school students from P.S. 134 also use the garden during the academic year. These partnerships identify it as a thriving and well-established community garden.

Notably, when NY4P surveyors were onsite, more people were sitting and chatting than actually gardening. Community gardens often serve as social spaces, particularly when they are accessible and inclusive. Our research shows us that not all community gardens are actively accessible to a wide usership population, making Model T a positive example for local gardens in the South Bronx.

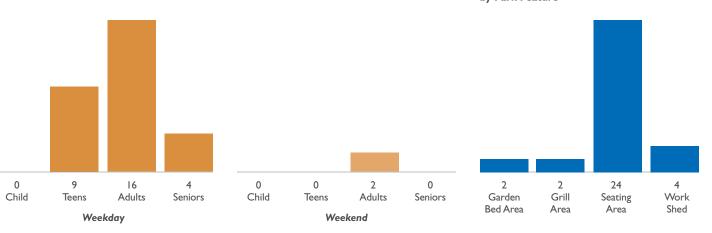


Model T Senior Citizens Garden Users by Age and Day Type





Model T Senior Citizens Garden Users by Park Feature



NYCHA OPEN SPACE: #2006103, East 165th Street and Bryant Street

Like other NYCHA properties in the area, this open space consists of multiple small lots with various features. One lot has a playground, the second a basketball court, but the third is overgrown, locked, and inaccessible. ³²

These spaces had the most users observed out of the five NYCHA properties surveyed by NY4P, but were still lightly used relative to other parks and open spaces of similar size in the area. This may be because NYCHA "parks" are technically only for NYCHA residents and guests to use. Whether and how these rules are enforced is unknown. These spaces are managed and maintained by NYCHA rather than NYC Parks, and suffer from NYCHA's overall shortage of operational funding and deferred capital investment.^{33, 34} In a neighborhood facing pressures of development and the possibility of a housing-focused rezoning, all open spaces should be scrutinized for their current-and possible future—level of accessibility to the public.

34 Gay, M. & Kusisto, L. (2018, Mar. 18). Largest Public-Housing System in the U.S. Is Crumbling. Wall Street Journal. Retrieved from https://www.wsj.com/articles/largestpublic-housing-system-in-the-u-s-is-crumbling-1521374400

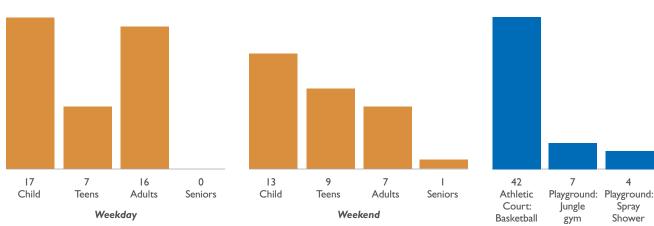


NYCHA 2006103 Users by Age and Day Type





NYCHA 2006103 Users by Park Feature



17

Seating

Area

³² Also in the vicinity is a locked and overgrown lot under the jurisdiction of New York City's Department of Housing Preservation and Development.

³³ Otterman, S. (2018, Apr. 4). Audit Finds Playground Perils in Housing Authority Developments. New York Times. Retrieved from https://www.nytimes.com/2018/04/04/nyregion/ nycha-housing-project-playgrounds.html

Findings

The Public Realm Bill of Rights lays out NY4P's ideal vision for neighborhoods and open spaces in New York City, understanding that local conditions dictate locally unique solutions for moving closer to fulfillment of each article.

We can match articles in the Bill of Rights to results for *Open Space Index* goals. The Southern Boulevard area meets 6 of the 14 open space goals. Many of these features are concentrated in Crotona Park—for example, 29 of the area's 76 playgrounds, 6 of its 11 athletic fields, and both of its functioning recreation centers. Only a third of the study area's residents live within a 10-minute walk of Crotona Park, meaning that not all residents are equally well-served by parks and open space.

Access

All New Yorkers have a right to open space in their communities, and every New Yorker should live within a 5-minute walk to a park, garden, or green space. Every user should feel safe traveling to and within these spaces.

- 9% of Southern Boulevard residents do not live within a five-minute walk of a pocket park or community garden.
- 44% of Southern Boulevard residents do not live within a five-minute walk of a neighborhood park.
- 67% of Southern Boulevard residents do not live within a ten-minute walk of a large park.

The Southern Boulevard area falls short of the goal for access to all types of park. Although all residents live within walking distance of at least one park or community garden, very few (about 3%) live within walking distance of all three types of park. About two-thirds of the total open space acreage in the study area is in Crotona Park, which is beyond a 10-minute walking distance for most area residents. Some locations which are mapped as open space were actually locked and inaccessible, such as the central section of Printer's Park and several NYCHA spaces. While our analysis includes NYCHA open spaces which were open and accessible during the study period, these spaces are not completely public and not everyone may be able to use them.

Access to the study area's two waterfront parks is uniquely difficult due local infrastructure conditions. Park-goers must navigate poorly maintained sidewalks along treeless commercial streets for numerous blocks, as well as cross major roads with multiple lanes of truck traffic, to reach either park. Once they arrive, their time in the parks is likely limited by the lack of comfort stations, a lack of programming, and their own perceptions of the park's safety. There have been a few incidences of felony crimes in Crotona Park, Starlight Park, and Concrete Plant Park in recent years. This may create a perception of danger and depress park usage, even if the parks are not in fact more dangerous than any other location in the neighborhood.

According to recent community survey process conducted by DCP, the most common reasons why local residents don't go to parks more often include: feeling unsafe in or on the way to parks, lack of appealing activities in parks, and the distance between parks and home.³⁵ Twenty percent of respondents said that they had never been to a local park.

Infrastructure

Parks and open spaces are essential parts of New York City's infrastructure. The process of park improvements should be equitable and inclusive of communities surrounding parks. As residential density increases, community planning processes should ensure adequate provision of parks and open spaces, improvements to these spaces, and maintenance of these spaces.

- Crotona Park represents 75% of all the open space in the Southern Boulevard area.
- The study area lacks the social infrastructure of volunteer park stewardship.

35 NYC Planning. (May 2018). Community Input Snapshot, Southern Boulevard Neighborhood Study.

The Southern Boulevard area has recently benefited from NYC Parks's Community Parks Initiative (CPI), a program dedicating funds to renovate parks in underserved neighborhoods citywide. Both Lyons Square Playground and Seabury Park were overhauled with CPI funding and reopened in the winter of 2017-2018. Longfellow Garden is nearing completion on a 3-year reconstruction process, following a decade or more of neglect.³⁶ Stebbins Park was recently reconstructed. Starlight Park and Concrete Plant Park are also relatively new, having been built after decades of community organizing and advocacy around the Bronx River waterfront (see the "Spotlight on Waterfront Access" section of this report).

Even after all these major capital projects and investments, the work is far from finished. The effects of decades' worth of neglect and under-investment are starkly visible in some local parks, like the asphalt-strewn Tiffany Playground. Starlight Park and Concrete Plant Park lack comfort stations, which makes them less accessible. NYCHA spaces, which are managed separately from NYC Parks properties, suffer from a lack of operational funding and capital investment. There is also a lack of social infrastructure in the form of

³⁶ Scarborough, J. (2014, Jan. 13). Longfellow Garden, once a 'beautiful park' shut down long ago by the city, has fallen into disrepair. New York Daily News. Retrieved from http:// www.nydailynews.com/new-york/bronx/locals-lament-forgotten-bronx-garden-article-1.1578582

"Friends of the Park" stewardship groups in the study area, even though the Bronx as a borough is very well-organized when it comes to parks.

Health

Access to nearby parks and open spaces benefits New Yorkers' public, social, psychological, and physical health. These spaces should provide programs and amenities that reflect the needs and character of the neighborhoods they serve. Parks and open spaces should also support civic action, assembly, and speech.

- The Southern Boulevard area needs more active open space outside of Crotona Park, including athletic fields and recreation centers.
- The Southern Boulevard area has an abundance of playgrounds and athletic courts, although some are in need of repair or renovation.

Community Boards 2 and 3 have both voiced a need for increased recreation facilities and park programming in order to improve health outcomes in the area. About half of all the active open space in the study area is located in Crotona Park, which is not within an accessible distance for most area residents.

Both of the functioning recreation centers in the study area are located in Crotona Park. The Cary Leeds Center for Tennis and Learning is a brand new public-private partnership that provides a plethora of free programming and events—but it is a specialized facility for tennis, with no space for other sports. The Crotona Park Poolhouse badly needs renovation and supports only two limited recreational uses: it is a locker room for the public during pool season and an indoor play area for a few nearby schools in the off-season. There is currently no dedicated multi-sport or flex space available to the public at low cost.

Environment

New York City parks and green spaces provide ecological benefits for city residents and urban wildlife. Green spaces should support multiple ecosystem services to make the city more resilient in the face of a changing climate and extreme weather.

- The Southern Boulevard area exceeds the standard for the number of community gardens. However, not all of these gardens are actively or consistently available for public access.
- The Southern Boulevard area could potentially support about three times the current tree canopy coverage.

Community gardens can provide physical sustenance, as well as spiritual and social sustenance for garden users. Unlike parks, however, many community gardens are closed to public access much of the time. The benefits of a community garden may be limited to a small number of people if access to the garden is restricted, and a small user base means there is a greater risk of the garden falling into disuse and neglect. The best-case scenario is a community garden that proactively works to include all neighborhood residents.

Tree canopy coverage refers to the total land area shaded by tree leaves and branches during the growing season. Trees provide multiple, linked sustainability and health benefits for a neighborhood and its residents—such as improved air quality, temperature regulation, noise reduction, and reduced stormwater runoff.³⁷ There is a large disparity between the most recent tree canopy coverage estimate—16%—and the 47% coverage that the Southern Boulevard area could support. Outside of Crotona Park, the area only has 9% tree canopy coverage.

Funding

Parks should be funded primarily by public dollars, and every park should be kept to a high standard of care. Our parks and gardens are essential city infrastructure, and should be funded and maintained as such.

• 80% of parks earned an acceptable overall maintenance rating, and 85% earned an acceptable cleanliness rating over the last 3 years (2014-2017). Parks in the Southern Boulevard area fall slightly short of Index goals for maintenance. Community Board 3 has voiced a perennial need for increased staffing and equipment dedicated to park maintenance.³⁸ A master plan for Crotona Park was created several years ago, but was not fully funded, so few of its recommendations have been implemented so far. Like many large parks throughout the city, Crotona Park is challenging to maintain and has tended to score lower than pocket and neighborhood parks in the area. It has recently moved to a new zone management model for maintenance, which will hopefully result in improved conditions.

The traditional model of "Friends of the Park" stewardship groups and privately funded parks conservancies is not traditional in this part of the city. Money for parks in the Southern Boulevard area is largely dependent on public funds, which are stretched thin. Some residents have undertaken determined fundraising campaigns to support recreation and fitness programming, as well as community gardens, but there is a finite capacity to what individual efforts can sustain.

37 Nowak, D. J., & Greenfield, E. J. (2018). US Urban Forest Statistics, Values, and Projections. Journal of Forestry, 116(2), 164-177.

38 Community District 3, Community District Needs Statements (2017-2019).

Recommendations

Residents of the Southern Boulevard area face interconnected challenges, rooted in New York City's economic, social, and political history. The people who live in this part of the South Bronx nonetheless have a history of self-organizing – the turnaround in conditions between the 1970s and today is a testament to their grit and determination.

The cleanup of the Bronx River and the push to decommission the Sheridan Expressway are two more examples of sustained grassroots organizing and advocacy – they are community-led efforts that have at times worked in partnership with government agencies and at other times in opposition. The community has organized itself out of necessity, in the face of neglect by public and private institutions.

DCP's selection of this area for potential rezoning represents a reversal of that neglect, whether for good or ill. The public review process attached to that rezoning is an opportunity for all interested parties to weigh in on the future of these neighborhoods. Bearing that in mind, New Yorkers for Parks is here to support a transparent, community-driven planning process and to lend our technical expertise on the subject of parks and open spaces. Our recommendations are structured to echo our Public Realm Bill of Rights, which articulates the many ways in which open space is crucial to a livable community. We identify goals and action steps for stakeholders at all levels, so that parks and open spaces in the Southern Boulevard can reach their full potential as centers of vibrant community life.

Access

Access to parks is the foundation for every other benefit that parks provide. The Open *Space Index* goal citywide is centered on easy walking access to local park spaces. However, the concept extends beyond simple physical proximity - ease and safety of navigation, accessibility for people with mobility limitations, and the presence of comfort stations and drinking fountains, for example, all factor into a full understanding of park access. Programming in parks is also important for access because it has been shown to increase park usage and to improve perceptions of parks as safe places.³⁹ In the Southern Boulevard area, improving access is especially important for the Bronx River waterfront parks, which represent millions of dollars of investment and years of community advocacy, but remain difficult to reach. Our park usership data also shows that women and girls may face access barriers to local parks, which may be ameliorated with a variety of programming or activities not necessarily organized by NYC Parks.

We reccomend:

- NYC Parks, community groups, others: Increase and invite more programming and organized activities in parks for all demographic groups—including adults and seniors, and especially female park users of all ages.
- NYS DOT, Governor: Support the community's vision for the Sheridan Expressway de-commissioning and truck access to the Hunts Point Peninsula.
- NYC Parks and NYC DOT: Improve signage and wayfinding, particularly for the hard-won Bronx River waterfront parks.

Infrastructure

Parks and open spaces serve many functions for many people: they are both physical and spiritual centers for community life. As a New York City state senator recently said, "A park in good condition is a symbol of a healthy community."⁴⁰ Indeed, research shows that greenery in common spaces and well-maintained parks correspond to stronger social ties in neighborhoods.⁴¹ The shared work of cleaning up a park or planting a community garden also leads to increased social cohesion and civic engagement.⁴² Our recommendations reflect the importance of both physical and social infrastructure to a healthy community.

We reccomend:

- NYC Parks, Mayor, Council Member: Prioritize capital investments for spaces that are visibly neglected, such as the central section of Printer's Park.
- NYC Parks, Mayor: Expand the Community Parks Initiative capital program to serve parks not yet revitalized.
- Community-Based Organizations: Foster stewardship capacity in the area, building relationships with existing park advocates throughout the Bronx and other parts of the city.
- NYC Parks & City Parks Foundation: Expand the Partnerships for Parks Catalyst program's reach in the area.

39 Cohen, D. A., Marsh, T., Williamson, S., Derose, K. P., Martinez, H., Setodji, C., & McKenzie, T. L. (2010). Parks and Physical Activity: Why are some parks used more than others? Preventive Medicine, 50, S9-S12.

40 Parry, B. (2018, May 13). Community will clean up Corona park in time for World War I hero's commemoration. Times Ledger. Retrieved from https://www.timesledger.com/ stories/2018/19/heropark_2018_05_11_q.html. 41 Gies, E. (2006). The Health Benefits of Parks. Trust for Public Land; Kuo, F. E., Sullivan, W. C., Coley, R. L., & Brunson, L. (1998). Fertile ground for community: Inner-city neighborhood common spaces. American Journal of Community Psychology, 26(6), 823-851.

42 Sherer, P. M. (2004). Park Power! Land & People.

Health

Residents in the Southern Boulevard area suffer disproportionately from chronic health problems like diabetes and asthma. Parks and open spaces are not a complete solution, but they can play a significant role in improving chronic conditions. They provide space for both individual recreation and exercise as well as group activities, with benefits for both physical and mental health. The Centers for Disease Control has found that park access corresponds with more regular exercise, and recommends park programming and community outreach as effective ways to increase people's physical activity levels and overall health.⁴³ In order to provide year-round public access to these benefits, the Southern Boulevard area needs more space for indoor activities.

We reccomend:

- Public Health Sector: Make parks part of the public health conversation – encourage public-private partnerships to address public health issues through creative collaborations between universities, hospitals, and private industry.
- NYC Parks: Invest in active recreation programming in Southern Boulevard parks. Renovate the Crotona Park Poolhouse to allow expanded use for indoor recreation.

Environment

The air quality and noise reduction benefits of a healthy urban tree canopy are particularly important in the Southern Boulevard area, given that it is surrounded by highways and residents suffer from extraordinarily high rates of asthma. There is room for improvement. Trees take years to reach maturity; maintenance and replenishment of the urban tree canopy is a necessary long-term investment for the future. About half of the study area's tree canopy is located within Crotona Park, and NYC Parks' funding is insufficient to provide consistent maintenance for trees in parks.

We reccomend:

- Mayor, City Council: Increase funding for park maintenance and forestry services both inside and outside parks.
- Community-Based Organizations: Support environmental stewardship education for local residents and students.

Funding

In the short term, a lack of maintenance funding for parks leads directly to poorer park conditions – if NYC Parks staff and equipment are spread too thin, and there is no private conservancy to fill the gaps, there is simply a limit to how well parks and open spaces can be maintained. In the long term, deferred maintenance leads to faster deterioration of park infrastructure. Investments in park renovations and capital improvements must be accompanied by the appropriate maintenance funding to maximize their useful lifespans. NYC Parks has identified this area as a priority zone for capital and maintenance spending, especially through the Community Parks Initiative. Seabury Park and Lyons Square Playground have been transformed through this capital program, and Longfellow Gardens Playground is expected to reopen soon, having undergone the same type of transformation. Money spent on parks means money saved elsewhere – because of the documented physical, social, and environmental benefits of parks. Moreover, funding for park projects can create a wide variety of job opportunities for a diverse range of workers.

We reccomend:

- NYC Parks, Mayor, City Council: Ensure funding for maintenance support is adequate for existing and in-construction parks.
- NYC Parks, Mayor, City Council: Continue the recent influx of capital improvements in parks and open spaces, particularly the Community Parks Initiative.

⁴³ Task Force on Community Preventive Services. (2001). Increasing Physical Activity. Atlanta, GA: Centers for Disease Control & Prevention. Retrieved from http://www.cdc.gov/ mmwr/preview/mmwrhtml/rr5018a1.htm



What's Next for NY4P

Any neighborhood-level rezoning has the potential to reshape, for better or worse, the structure and character of whole swaths of New York City. In anticipation of the potential rezoning of the Southern Boulevard area, New Yorkers for Parks has created this Open Space Index as a resource for local stakeholders, who understand how parks and open spaces can factor into overarching priorities like improving health outcomes and educating young people.

In our role as technical advisors and advocates for community-driven planning processes throughout New York City, New Yorkers for Parks will work with our South Bronx partners to engage vigorously in public decision-making processes. We'll reach out to establish relationships with more organizational stakeholders, so that our findings and open space recommendations can contribute to a wider range of advocacy. We will continue to uphold the longstanding consensus-based community vision for the Bronx River waterfront. If and when DCP presents their proposed rezoning plans for the Southern Boulevard area, New Yorkers for Parks will be ready to lend our voices and our expertise to local stakeholders. We will advocate for parks and open space as critical city infrastructure, not "amenities" in neighborhood planning projects.

As the City moves forward with its study of Southern Boulevard, we'll additionally work with City agencies and local elected officials. By sharing our data and our findings, we can ensure that open space planning is brought to the table early on. Because of our independent role, we're positioned to help foster a collaborative community-based planning process that informs the City's future action.

Our Outreach & Programs team will seek a deeper involvement with South Bronx stakeholders. The Bronx as a borough is very well-organized on the parks front, and we'll foster relationships to bring park advocates from the Southern Boulevard area into the fold. We'll connect people who care about open spaces in Crotona Park East and Longwood with peers from organizations across the Bronx, so they can gain access to a wider network of resources and support. The Southern Boulevard Open Space Index is by no means the culmination of our work in the South Bronx. Rather, it is an initial contribution to the larger conversations about the changes that a rezoning may bring to the area. We're looking ahead to the years of work with our partners to ensure that parks and open spaces are treated as integral parts of a healthy, thriving community.



Appendix A: Methodology and Data Sources

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 Index 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. NY4P conducted a pilot study of the Lower East Side in 2009, which helped to refine the Open Space Index and was the basis of our first published Index report in 2010. Since that time, we have released Indices for seven neighborhoods: the Lower East Side, Jackson Heights, East Harlem, East Midtown, the Upper East Side, Mott Haven, and Brownsville.

TOTAL OPEN SPACE

All acres of open space in the neighborhood that provide space for play, relaxation, and contact with nature.

DATA COLLECTION: Shapefiles provided by NYC Parks and obtainable through the NYC Open Data portal provide total acreage figures for all neighborhood open spaces. Google Earth was used to calculate acreage figures for NYCHA open spaces. Properties which appeared to be permanently inaccessible to the public and non-maintained were not included in total acreage figures.

ACTIVE OPEN SPACE

All acres of playgrounds, fields, courts, rec centers, and other active open spaces.

DATA COLLECTION: Calculating a neighborhood's active open space acreage required measuring the playgrounds, courts, fields, swimming pools, golf courses, greenways, bikeways, and recreation centers. These features are identified on shapefiles provided by NYC Parks, and their presence is confirmed on site visits by NY4P field surveyor staff. Then, NY4P staff use Geographic Information Systems (GIS) mapping software to calculate the acreage of these features for individual park properties.

PLAYGROUNDS

Places for play with things like swings, climbing frames, water features, sand boxes, or other play areas.

DATA COLLECTION: These features are identified on shapefiles provided by NYC Parks or otherwise on the NYC Open Data website, and their presence is confirmed on site visits by NY4P field surveyor staff. The *Open Space Index* defines a playground as a portion of a park consisting of play equipment, such as swings or structures for climbing. A playground is defined as the maximally-bounded area that contains play features. Sometimes this will be a stand-alone property; other times there will be several playgrounds within a larger park.

ATHLETIC FIELDS

Fields for sports like soccer, football, cricket, baseball, rugby, and field hockey, as well as ice rinks. DATA COLLECTION: These features are identified on shapefiles provided by NYC Parks, and their presence and type is confirmed on site visits by NY4P field surveyors. 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

Courts for playing sports like basketball, handball, volleyball, tennis, and bocce. DATA COLLECTION: These features are identified on shapefiles provided by NYC Parks, and their presence and type is confirmed on

site visits by NY4P surveyors. When halfcourts for basketball are identified, they are counted as half a court.

RECREATION CENTERS

Indoor recreation centers operated by NYC Parks, and other indoor facilities with similar fees and public access.

DATA COLLECTION: Data on recreation centers comes from a variety of sources. NYC Parks shapefiles include recreation centers. Surveyors also identify community centers run by non-profits 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 NYC Parks recreation centers, they are included in the neighborhood's recreation center count.

PASSIVE OPEN SPACE

All acres of lawns, esplanades, plazas, beaches, natural areas, planted areas, and community gardens.

DATA COLLECTION: Passive Open Space acreage is obtained by identifying the total acreage for each open space resource, and removing the acreage that can be attributed to Active Open Space programming. The locations of the NYC Department of Transportation's Plaza Program are also found on the Open Data portal.

COMMUNITY GARDENS

All Green Thumb gardens and other community gardens with public access.

DATA COLLECTION: New York City's community gardens are owned and operated by a variety of entities including GrowNYC, NYC Parks, the Trust for Public Land, New York Restoration Project, and others. NY4P obtains community garden data from the NYC Open Data portal, provided by NYC Parks and GrowNYC. Surveyors confirm the presence of these resources through site visits. Surveyors also identify community gardens through on-the-ground fieldwork and confirm potential public gardens with data from 596 Acres (www.596acres.org).

ACCESS TO OPEN SPACES

We measure the percentage of the residential population within a 5-minute walk to every park entrance.

DATA COLLECTION: Using GIS mapping software, we ran a network analysis, measuring sidewalk paths from all park entrances. For pocket parks and neighborhood parks, we calculated quarter-mile sidewalk paths, and for large parks, we calculated half-mile sidewalk paths. These pathways represent the total area covered by our park accessibility standards. We overlaid census blocks with 2015 American Community Survey 5-year population estimates on these shapes, to derive the population residing in that area. Where the census blocks fell only partially within the accessibility area, we determined the percentage that was covered, and assumed an equal distribution of the population within the block to arrive at our figures.

URBAN TREE CANOPY

The layer of tree leaves, branches, trunks and stems that cover the ground when viewed from above, measured against local capacity estimates from the U.S. Forest Service.

DATA COLLECTION: We use the potential neighborhood-level tree canopy coverage estimate 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.¹ Using GIS data and aerial photography, the Forest

Service calculated New York City's existing Urban Tree Canopy at 24%. By identifying all land not covered with water, roads, or buildings as possible planting locations, the study estimated that New York City's Urban Tree Canopy could be expanded to 42%. We derive the current canopy coverage for our study area from 2007 LiDAR data for New York City. A new LiDAR data set is set to be released in late 2018, which will account for increased tree plantings over the past decade.

PARK MAINTENANCE

NYC Parks' Parks Inspection Program ratings for parks in the study area are aggregated. DATA COLLECTION: To calculate park maintenance results, we use the "cleanliness" and "overall condition" ratings from NYC Parks' Parks Inspection Program (PIP) for all parks within the survey area over the last three years (2014-2017). The PIP results are available on the NYC Open Data portal. The "cleanliness" rating is based on the presence of litter, glass, graffiti, weeds, and ice. The "overall condition" rating assesses litter, glass, graffiti, weeds, ice, benches, fences, paved surfaces, play equipment, safety surfacing, sidewalks, athletic fields, horticultural areas, lawns, trails, trees, and water bodies. For both categories, NY4P calculates a neighborhood's result by adding the number of park inspections that are rated "acceptable" and dividing that result by the total number of inspections for area parks over the last three years. The citywide goal is derived from the *NYC Mayor's Management Report* park performance targets.

¹ Grove, J. M., O'Neil-Dunne, J., Pelletier, K., Nowak, D., & Walton, J. (2006). A report on New York City's present and possible urban tree canopy. United States Department of Agriculture Forest Service, Northeastern Research Station: Burlington, VT.

Appendix B: OSI Summary Table

Amount of Open Space	Goal	Units per capita	Per Capita Result	Result	Meets Standard?	Gap	Needed to Bridge the Gap
Playgrounds	I	playgrounds per 1,250 children	76	8.6	Yes	_	_
Athletic Fields	1.5	athletic fields per 10,000 residents	11	2.5	Yes	_	_
Courts	5	courts per 10,000 residents	70.5	16.0	Yes	_	_
Recreation Centers	I	recreation centers per 20,000 residents	2	0.9	No		_
Active Open Space	I	acres per 1,000 residents	38.6	0.9	No	0.1	5.5 acres
Community Gardens	I	gardens per 10,000 residents	12	2.7	Yes	_	_
Passive Open Space	1.5	acres per 1,000 residents	133.5	3.0	Yes	_	_
Total Open Space	2.5	acres per 1,000 residents	172.1	3.9	Yes	_	_
Access and Distance to Parks	Goal	Within	Per Capita Result	Result	Meets Standard?	Gap	Needed to Bridge the Gap
Pocket Parks	100% residents	1⁄4 mile of pocket park entrances	40,112	91%	No	9%	4,009 residents
Neighborhood Parks	100% residents	1/4 mile of neighborhood park entrances	24,822	56%	No	44%	19,299 residents
Large Parks	100% residents	1⁄2 mile of large park entrances	14,679	33%	No	67%	29,442 residents
Environmental Sustainability	Goal		Result		Meets Standard?	Gap	
Urban Tree Canopy	47% potential tre	e canopy for Crotona Park East and Longwood	16%		No	31%	-
Park Maintenance	Goal		Result		Meets Standard?	Gap	
Cleanliness	90% of park inspe	ections rated "acceptable"	85%		No	5%	-
Overall Condition	85% of park inspe	ections rated "acceptable"	80%		No	5%	-



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New Yorkers for Parks is the citywide independent organization championing quality parks and open spaces for all New Yorkers in all neighborhoods. Parks are essential to the health of residents, the livability of neighborhoods, and the economic development of the city. Through our integrated approach of research, advocacy, and strategic partnerships, we drive immediate actions and long-term policies that protect and enhance the city's vast network of parks, ensure equitable access to quality open spaces for all neighborhoods, and inform and empower communities throughout New York City. Information on New Yorkers for Parks' research and projects is available at www.ny4p.org

The ROCKEFELLER

This study was made possible in part by funds granted by The Rockefeller Foundation, the Altman Foundation, and the New York Community Trust. New Yorkers for Parks' research is also supported by The J.M. Kaplan Fund, The Charina Endowment Fund, Inc., The Cowles Charitable Trust, and other generous funders.

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SPECIAL THANKS

Banana Kelly CIA Bronx River Alliance Nos Quedamos NYC Department of City Planning NYC Parks Partnerships for Parks The Point CDC WXY architecture + urban design Youth Ministries for Peace and Justice