The Sakura Park is a public park, located at the Northern-tip of Morningside Heights, New York City. The park is an extension of Riverside Park, which sits along the East side of the Hudson River. John D. Rockefeller originally owned the land the park resides in now, until the City of New York purchased the land in 1896 to become an extension of Riverside Park. The park was originally named ‘Claremont Park’, but was later changed after a donation of two-thousand cherry blossoms (Sakura means ‘cherry blossom’ in Japanese) trees were gifted to the city from the committee of Japanese residents of New York as a part of the Hudson-Fulton’s celebration in 1909.

Sakura Park sits upon a plinth like base centered between - Riverside Church (located to the south), the Manhattan School of Music (located to the east), Grant’s Tomb (located to the west), and the International House (part of Columbia University) located to the north.

“I love this park because of its small scale—there’s something tragic yet inspiring about the way it stands just across the road from its immense neighbor—and because of the huge variety of people who pass through it: if you linger for just a few minutes, you’re likely to see families picnicking, people practicing tai chi, and graduate students scurrying home with big bags of books in their hands.” stated one area resident.

Sakura Park is located in Morningside Heights in Manhattan. Morningside Heights borders Harlem on the East and the Hudson River on the West.

“Morningside Heights is one of New York City’s smallest neighborhoods, but architecturally and historically it is one of the more interesting areas of the city. Morningside Heights is home to the largest concentration of institutions in the New York, including some of the city’s most prestigious academic and philanthropic organizations. Almost all of the institutions moved to Morningside Heights in the last years of the 19th century and first years of the 20th century, erecting distinguished buildings that help to define both the neighborhood and the identity of each organization. Morningside Heights is not, however, solely the province of major institutions. The area also includes a small number of row houses from the 1890s and a large collection of middle-class apartment buildings, most of which were erected in the early 20th century.”

Before major developments, Morningside Heights during the 17th and 18th centuries was a rural region containing mostly cottages and farmhouses. Very few mansions were built in the area at the time. A few of the first institutional facilities in the neighborhood were: The Bloomingdale Asylum, which opened in 1821, The Leak and Watts Orphan Asylum, and the Union Theological Seminary all established within the area in the early 1800’s.
riverside park
The waterfront park consists of four-mile strip (330 acres) of land (stretches from 72nd to 158th Street) resting between the Hudson River and River- side Drive in the Upper West Side of Manhattan. The park was original constructed in 1846. Frederick Law Olmsted, whom also designed Central Park, designed the landscape for Riverside Park.

grant’s tomb
Located in Morningside Heights overlooking the Hudson River, General Grant National Memorial is the largest tomb in North America. Grant’s tomb is final resting place and a memorial to the life and accomplishments of General and 18th President of the United States, Ulysses S. Grant. John Duncan was the chosen architect of the design competition that was held for the design of the tomb. The building was opened in 1897. The tomb is constructed from 8,000 tons of granite with marble floors.

manhattan school of music
founded in 1917 by Janet D. Schenck a pianist and philanthropist. It is located in Morningside Heights between Grant’s Tomb and Columbia University. The Manhattan School of Music is considered one of the most prestigious conservatories of the study of music in the world. The campus was the original home of the Juilliard School.

columbia university
founded in 1754 as King’s College, and was first situated near where the World Trade Center now stands, and later at Park Avenue and 49th Street. Work began on its present campus in 1897, on the site of what had been New York Hospital’s Bloomingdale Insane Asylum. The McKim, Mead and White campus, with its stunning Beaux Arts marriage of bricks and marble, will make you nostalgic for every school you ever attended, and give you plenty of clues as to why Morningside Heights sometimes gets called ‘the Acropolis of Manhattan’.

riverside church
This 21–story steel structure with a Gothic exterior was inspired by Chartres Cathedral, and funded by John D Rockefeller Jr. in 1930. The church is a culmination of religious, worship, community, music, and cultural programs. Program: Chapel, gallery, gymnasium, assembly hall, library, classrooms, studios, offices, nursery-kindergarten, kitchen, theater, parking, bowling alley.

During the Great Depression, the church created a relief program for the community.

Significant people: Martin Luther King Jr., President Bill Clinton, Nelson Mandela, His Holiness the 14th Dalai Lama, Rev. Jesses Jackson, and Elton John have been some of the supporters and speakers at the Riverside Church.

international house
Founded in 1924 and was funded by John D. Rockefeller Jr. Also known as the I-House is a non-profit residence for international graduate students attending various universities and schools within New York City. The I-House houses 700 students from over 100 countries. It is located in Morningside Heights adjacent at the northern-tip of Sakura Park.

figure 10: perspective by H.M. Pettit, looking south, showing Morningside Heights as it would look with a number of its major building projects completed. In the lower left corner are the I.R.T subway tracks coming above ground at Broadway and 122nd streets. The Columbia University campus is shown with its 1903 revised masterplan complete. Beyond Columbia, the Dome of Ernest Flagg’s St. Luke’s Hospital is visible at 113th Street between Morningside Drive and Amsterdam Avenue. Directly to its south. St. John the Divine is rendered as completed to the designs of Heins & LaFarge. In the center middleground Charles R. ch’s unexecuted 1904 masterplan for Barnard College, with Riverside Park extended eastward to Claremont Avenue. At the right, John Duncan’s Grant’s Tomb crowns Riverside Drive; above it’s Pett’s own design for Columbia Stadium on the Hudson River, and in the far distance Gustav Lindenthal’s 1891 project for the Hudson River Bridge. Metropolitan Architecture and urbanism 1890-1915, Rober A.M. Stern

figure 13: view of grant’s tomb and sakura park, where riverside church now stands.
figure 11: View of Grant's Tomb and the Hudson River in the background.

figure 12: Grant's Tomb Dedication, April 27, 1897.

figure 14: Panoramic view of the Hudson River and Grant's Tomb.
figure 15: view of grant's tomb from west side.

figure 16: inside view of grant's crypt. American Historical Buildings Survey.

figure 17: view from the east, and southwest side of institute of music art (original Juilliard), 1910.

Figure 19: Riverside church, 1930. View from the south - Riverside Drive and Claremont Avenue.

Figure 20: Riverside church. Riverside Drive - 122nd St. W., 1936.

Figure 21: International House under construction, 1910.

Figure 22: Plinth of sakura park and the international house in the background.

Figure 23: View from Claremont Ave - 122nd St. W. (before the new wall was constructed), 1928-36.
why sakura park?

Sakura Park was chosen to be the thesis site because of the dense cultural institutions surrounding the site. The site acts as a communal ground for social, cultural, and political venues. The site is situated around religious, residential, educational institutions, public parks, and the Harlem and Morningside Height communities. The site borders the neighborhood of Harlem, which has very strong cultural history. It sits within close proximity to Columbia University, which reinforces the notion of education and also borders the Manhattan school of Music – which takes scholastics towards music. Situating the R.E.C. Orphanage in an environment which many activates (Arts, performing arts, scholastic studies, dining, and athletics) take place within close proximity to the children’s daily routines is important in integrating the orphan youth within society, rather than isolating them as the traditional orphanage had done. As suggested earlier, the orphanage facility can only operate if it is set within a larger social framework within an urban city. Children have been described as nomadic in nature, creating a structured environment, which allows for their senses of creativity to play out while also creating a sense of home, education, and a sense of inclusion within society. The urban site must allow for openness for youths to participate and engage the city and for possible opportunities for social engagement with their community or programs such as the ‘Big brother, big sister’ program; while also creating moments of privacy and protection from intruders or negative influences. This site will provide an active environment that will allow the children to work on their social skills with each other, the urban environment and society.

Cultural benefits in having the site in this location:
- Density of interaction amongst people.
- Columbia University, Riverside Church, Grant’s Tomb, parks (Riverside Park and Morningside Heights Park), cafes, libraries, shopping, commerce, farmers markets...many opportunities for social and cultural interactions.
what is located around the site?

hudson river  riverside park  grant’s tomb  international house  proposal  riverside church  manhattan school of music (original juilliard school)

Illustration showing the four major buildings that enclose the site and how the site is/could be activated with people and events from these institutions.
Sakura Park is an extension of Riverside park (four-mile strip - 330 acres of land) which stretches from 72nd to 158th Street. Both of the parks are set along side the Hudson River and Riverside Drive in the Upper West Side of Manhattan. The neighborhood's border is defined by a strong topographical presence. Morningside Heights has been described as the ‘acropolis’ of the Manhattan, as it sits upon a plinth. The plateau that Morningside Heights sits upon starts from the south and begins to rise at 110th Street where it begins to peak around 117th street before descending to the north of Morningside Heights.

The rectilinear site (450’ north-south by 200’ east-west) sits upon a base that is made up of a massive buttressed retaining wall built on the eastern side of the park along Claremont Avenue. There are five entries to the park, with two of those entries making the corners of the park with grand staircases. There are two elevation changes along two sides of Sakura Park (the south and west sides of the park). There is a twenty-foot elevation change starting from W. 122nd Street slopping downward to Claremont Avenue (east). The second slope drops 14 feet from south corner of the site to north along Claremont Avenue. From the top of Riverside Drive (where Grant’s Tomb is located) there’s an elevation change downward of 130 feet to the beginning of the riverbed. Morningside Heights is somewhat isolated from other neighborhoods because of the topographic situation.

The four major buildings surrounding the site (Grant’s Tomb, Riverside Church, Manhattan School of Music, and the International House), two of which have frontal facades facing the park. The International House (along the northern-tip of the site) and the Manhattan School of Music’s (along the east side of the site) entrances are perpendicular to the site. The entrance to Grant’s tomb runs south to north, and the entrance for Riverside Church runs from west to east.

Urban fabric along Claremont Avenue is made up of row housing, with the Manhattan School of Music marking the corner at W. 122nd street and Claremont Ave. There is an eight-foot datum line running along the bottom elevation of the Claremont Ave. clearing marking the first floor level. From the top of Sakura Park, looking towards the elevation of Claremont Ave., the base of the park datum line, lines up with the bottom of the third storey on the Manhattan School of Music’s elevation.
panoramic view of sakura park from the corner of rivers de drive (left side of image) and w. 122nd street.

panoramic view of sakura park from the corner of w. 122nd street and claremont ave (right side of image).
East-West sect on through sakura park.
north-south elevation along Claremont Ave. Looking east towards riverside church.
north-south elevation along claremont ave looking west towards new jersey.
north-south elevation along w. 122nd street looking north to the site.

north-south elevation on along w. 122nd street looking north to the site. Sect on through grant's tomb.
north-south elevation along Claremont Ave. Looking east towards riverside church.
north-south elevation along claremont ave looking west towards new jersey.
site area:
\[200 \times 450 = 90,000 \text{ sq. ft.}\]

available volumetric base (plinth):
\[200 \times 450 \times 18 = 1,620,000 \text{ cu. ft.}\]

available volumetric envelope:
\[90,000 \text{ sq ft} \times 110 \text{ (11 stories @ 10 ta each storey)} = 9,900,000 \text{ cu. ft.}\]
urban context analysis of surrounding institutions
circulation analysis: vehicle and pedestrian
context pressures

density nodes

main circulations

densities of people

main heart of site?

densities of people + heart

proposed - 3 densities of people

current situation

orphan popu at on

genera pub c popu at on

grant's tomb popu at on
goal: integration
avoid: isolation
looking WEST section from clairmont st looking WEST (Jersey)

WEST/EAST section through grants tomb and juilliard public private

Dormitories
Dining Hall
Clubs
Children's Library
Performance Theatre
Atheletics
Arts
Gymnasium
looking WEST section from Clairmont St. looking WEST (Jersey)

WEST/EAST section through Grant's Tomb and Juilliard Park

gallery theatre

park
### Program Area

**Site area:**

\[
200' \times 450' = 90,000 \text{ ft}^2 \\
2.067 \text{ acres}
\]

**Available Volumetric Envelope:**

\[
90,000 \text{ ft}^2 \times 11 \text{ (bottom of base to 135 ft top of international house)} \times \text{stories} = 990,000 \text{ ft}^3
\]

**Available Volumetric Base (Plinth):**

\[
90,000 \text{ ft}^2 \times 18 \text{ ft} = 1,620,000 \text{ ft}^3
\]

### Residential Educational Cultural Center (R.E.C.) Population:

**Orphan population: 300 orphans**

---

#### Example population and area requirement chart

<table>
<thead>
<tr>
<th>Space</th>
<th>100 orphans</th>
<th>200 orphans</th>
<th>300 orphans</th>
<th>Net Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Area, sq ft</strong> # items</td>
<td>9,750 (50 rooms)</td>
<td>19,500 (100 rooms)</td>
<td>29,250 (150 rooms)</td>
<td>(350 rooms)</td>
</tr>
<tr>
<td>Residence/Bedrooms</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bedrooms (2 person minimum – 15’x13’)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bedrooms (4 person maximum - 16’x16’)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bunk Room (grouped)</td>
<td>10,000</td>
<td>20,000</td>
<td>30,000</td>
<td></td>
</tr>
<tr>
<td>(100 sq ft each child)</td>
<td>100</td>
<td>200</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Beds (per child)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bathrooms</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>2 of each per 10 child</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Toilets</td>
<td>50</td>
<td>100</td>
<td>150</td>
<td></td>
</tr>
<tr>
<td>Showers/Baths</td>
<td>50</td>
<td>100</td>
<td>150</td>
<td></td>
</tr>
<tr>
<td>Sinks</td>
<td>50</td>
<td>100</td>
<td>150</td>
<td></td>
</tr>
<tr>
<td>Communal rooms (10’x20’)</td>
<td>2,250</td>
<td>2,250</td>
<td>2,250</td>
<td></td>
</tr>
<tr>
<td>Lounge/living space</td>
<td>234 (12’x18’)</td>
<td>234 (12’x18’)</td>
<td>375 (15’x25’)</td>
<td></td>
</tr>
<tr>
<td>Library/study (12’x20’)</td>
<td>1,040 (4 study rooms)</td>
<td>1,560 (6 study rooms)</td>
<td>2,080 (8 study rooms)</td>
<td></td>
</tr>
<tr>
<td>Laundry</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Linen storage</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Garden/Courtyards</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Playrooms (16’x25’)</td>
<td>1,120 (2 playrooms)</td>
<td>2,240 (4 playrooms)</td>
<td>4,480 (8 playrooms)</td>
<td></td>
</tr>
<tr>
<td><strong>Live-in-staff Bedrooms:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bedrooms (150 sq ft each)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Library/Study</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kitchen</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Laundry</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Linen storage</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Refridgerated Storage</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dishwashing</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trash room</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employee lockers and toilets</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manager’s office</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Net Total = 55,085**

#### Tables (3’-4”x9’ – seats 6-8)

<table>
<thead>
<tr>
<th>Space</th>
<th>12’</th>
<th>24’</th>
<th>38 (11’x30 = 1,230 sq ft)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kitchen</td>
<td>1,500</td>
<td>1,650</td>
<td>2,100</td>
</tr>
<tr>
<td>Refrigerated Storage</td>
<td>180</td>
<td>240</td>
<td>160-200</td>
</tr>
<tr>
<td>Dishwashing</td>
<td>240-480</td>
<td>480</td>
<td>520-720</td>
</tr>
<tr>
<td>Trash room</td>
<td>130-150</td>
<td>130-150</td>
<td>190-240</td>
</tr>
<tr>
<td>Employee lockers and toilets</td>
<td>100-115</td>
<td>100-115</td>
<td>230-250</td>
</tr>
<tr>
<td>Manager’s office</td>
<td>80</td>
<td>80</td>
<td>120</td>
</tr>
</tbody>
</table>

**Net Total = 10,630**
**Example population and area requirement chart**

<table>
<thead>
<tr>
<th>Space</th>
<th>100 orphans Area, sq ft # items</th>
<th>200 orphans Area, sq ft # items</th>
<th>300 orphans Area, sq ft # items</th>
<th>Net Total Area, sq ft # items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administration:</td>
<td></td>
<td></td>
<td></td>
<td>3,600 (40'x90')</td>
</tr>
<tr>
<td>Director’s office</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Secretary, reception, etc</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Offices</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Security Office</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Faculty Lounge</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education:</td>
<td></td>
<td></td>
<td></td>
<td>25,650</td>
</tr>
<tr>
<td>(Capacity: 200 in-house- school)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Classrooms (40’x22’ – 30-35 capacity)</td>
<td>3,520 (4 @ 40’x22’)</td>
<td>7,040 (8 @ 40’x22’)</td>
<td>13,200 (15 @ 40’x22’)</td>
<td></td>
</tr>
<tr>
<td>(850 sq ft - 1,150 sq ft min)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lecture Halls (40’x29’ – capacity 64)</td>
<td>1,160 (1 lecture hall)</td>
<td>2,320 (2 lecture hall)</td>
<td>5,220 (1 lecture hall – 300 capacity)</td>
<td></td>
</tr>
<tr>
<td>Library</td>
<td></td>
<td></td>
<td></td>
<td>1,600 (40’x40’)</td>
</tr>
<tr>
<td>Art Room (40’x75’)</td>
<td></td>
<td></td>
<td></td>
<td>3,000</td>
</tr>
<tr>
<td>Playground (1 acre per 1,000 population)</td>
<td>10,890 (100’x108.9’ – 400 capacity)</td>
<td>10,890 (100’x108.9’ – 400 capacity)</td>
<td>30,870 (100’x108.9’ – 400 capacity)</td>
<td></td>
</tr>
<tr>
<td>Offices</td>
<td></td>
<td></td>
<td></td>
<td>800 (20’x40’)</td>
</tr>
<tr>
<td>Athletic Center:</td>
<td></td>
<td></td>
<td></td>
<td>16,233</td>
</tr>
<tr>
<td>Gymnasium</td>
<td>1,872 (36’x52’)</td>
<td>3,744 (52’x72’)</td>
<td>5,590 (65’x86’ – seats 400)</td>
<td></td>
</tr>
<tr>
<td>Pool</td>
<td>2,625 (35’x75’)</td>
<td>5,700 (60’x95’)</td>
<td>5,700 (60’x95’)</td>
<td></td>
</tr>
<tr>
<td>Game/play rooms</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Playrooms (12’x16’)</td>
<td>384 (2 playrooms)</td>
<td>576 (3 playrooms)</td>
<td>768 (5 playrooms)</td>
<td></td>
</tr>
<tr>
<td>1 Game room (30’x75’)</td>
<td>2,250</td>
<td>2,250</td>
<td>2,250</td>
<td></td>
</tr>
<tr>
<td>Locker rooms</td>
<td>900 (20’x45’)</td>
<td>1,925 (35’x55’)</td>
<td>1,925 (35’x55’)</td>
<td></td>
</tr>
<tr>
<td>Theater/Gallery/Exhibition:</td>
<td></td>
<td></td>
<td></td>
<td>12,746</td>
</tr>
<tr>
<td>Theater/Performance</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lobby</td>
<td></td>
<td></td>
<td></td>
<td>1,000 (50’x20’)</td>
</tr>
<tr>
<td>Stage</td>
<td></td>
<td></td>
<td></td>
<td>1,400 (35’x40’)</td>
</tr>
<tr>
<td>Seating</td>
<td></td>
<td></td>
<td></td>
<td>4,746 (87’x64’ 5” – seats 672)</td>
</tr>
<tr>
<td>Gallery</td>
<td>1,800 (30’x60’)</td>
<td>1,800 (30’x60’)</td>
<td>2,400 (30’x80’)</td>
<td></td>
</tr>
<tr>
<td>Art Studios (20’x20’)</td>
<td>400</td>
<td>400</td>
<td>800 (2 studios)</td>
<td></td>
</tr>
<tr>
<td>Dance Studio</td>
<td>1,000 (20’x50’)</td>
<td>1,750 (25’x70’)</td>
<td>2,250 (30’x75’)</td>
<td></td>
</tr>
<tr>
<td>Public toilets (10’x15’)</td>
<td>150</td>
<td>150</td>
<td>150</td>
<td></td>
</tr>
<tr>
<td><strong>Net Total: 138,944</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Circulation: 27,788 sq. ft.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Gross Total: 166,732 sq. ft.
20% Circulation
program components: plan net total

site area
200'x450'
90,000 sq ft

theater/gallery/exhibition
200'x63.73'
12,746 sq ft

athletic/gymnasium
200'x81.165'
16,233 sq ft

residence area
population: 300
200'x275.425'
55,085 sq ft

education
200'x128.25'
25,650 sq ft

administration residence
population: 15
200'x75'
15,000 sq ft

dining area
population: 300
200'x53.15'
10,630 sq ft

program mass area

program components: plan net total

site area
200'x450'
90,000 sq ft

residence area
200'x275.425'
55,085 sq ft

top

administration net total:

site area
200'x450'
90,000 sq ft

administration net total:

site area
200'x450'
90,000 sq ft

program mass area

program net total:
site
90,085 sq ft

residence
90,000 sq ft

education
25,650 sq ft

athletics/gymnasium
16,233 sq ft

site area
200'x450'
90,000 sq ft

2 person minimum 15'x13'
per bedroom

4 person minimum 16'x16'
per bedroom

10'x10'x10' - (300) 100 sq ft required per child
300 beds

25 bathrooms 25'x15'

playrooms 25'x16'

library/study 20'x13'

communal room 75'x30'

lounge/living space 25'x15'

2 person minimum 15'x13'
per bedroom

2 person m n mum
per bedroom
29,250 sq ft (292.6'x100')

4 person minimum 16'x16'
per bedroom
38,400 sq ft (384'x100')

100 sq ft each child
required per child
30,000 sq ft (200'x150')

25 bathrooms 25'x15'

playrooms 25'x16'

library/study 20'x13'

communal room 75'x30'

8 classrooms
880 sq ft (40'x22')

2 lecture halls
1,160 sq ft (40'x29)

8 classrooms
7,040 sq ft (100'x70.4)

2 lecture halls
2,320 sq ft (50'x46.4')

library
1,600 sq ft (40'x40)

art room
3,000 sq ft (75'x40)

playground
10,890 sq ft (100'x108.9')

pool
5,700 sq ft (95'x60)

game room
2,250 sq ft (75'x30)

locker rooms
1,925 sq ft (55'x35)

playrooms
192 sq ft (16'x12)

playrooms
768 sq ft (38.4'x20')

offices
800 sq ft (40'x20)
program components

(site area)

200’x450’x20’
1,800,000 cu ft

(buildable area)

200’x450’x110’ (11 stories)
990,000 cu ft

theater/gallery/exhibition

200’x61.73’x40’
152,952 cu ft

athletics/gymnasium

200’x81.165’x40’
649,320 cu ft

residence area

population: 300
200’x275.425’x10’
550,850 cu ft

educational

population: 150
200’x275.425’x10’
649,320 cu ft

administration

population: 300
200’x18’x10’
36,000 cu ft

dining area

population: 300
200’x53.15’x10’
106,300 cu ft

program components: axon net total (minimum requirements)
**Site**

- *Site Area*: 200'x450'x20'
- *Total Area*: 1,800,000 cu ft

**Residence**

- *Residence Size*: 55,085 sq ft
  - 2 Person Minimum: 15'x13'x10'
  - 4 Person Minimum: 16'x16'x10'
  - 10'x10'x10' (300 beds)
  - 7'x3.6'x4' (300 beds)
  - 25 Bathrooms: 25'x15'x10'
  - Playrooms: 25'x16'x10'
  - Library/Study: 20'x13'x10'
  - Communal Room: 75'x30'x10'

**Education**

- *Total Area*: 25,650 sq ft
  - 8 Classrooms: 8,800 cu ft (40'x22'x10')
  - 2 Lecture Halls: 11,600 cu ft (40'x29'x10')
  - Library: 16,000 cu ft (40'x40'x10')
  - Art Room: 30,000 cu ft (75'x40'x10')
  - Playrooms: 448,000 cu ft (89.6'x50'x10')
  - Offices: 8,000 sq ft (40'x20'x10')

**Athletics/Gymnasium**

- *Total Area*: 16,233 sq ft
  - 8 Classrooms: 70,400 cu ft (100'x70.4'x10')
  - 2 Lecture Halls: 23,200 cu ft (50'x46.4'x10')
  - Gymnasium: 223,600 cu ft (86'x65'x40')
  - Pool: 114,000 cu ft (95'x60'x20')
  - Game Room: 22,500 cu ft (75'x30'x10')
  - Locker Rooms: 19,250 cu ft (55'x35'x10')
  - Playrooms: 1,920 cu ft (16'x12'x10')

**Additional Notes**

- 2 Person Minimum: 15'x13'x10' per bedroom
- 4 Person Minimum: 16'x16'x10' per bedroom
- Playground: 435,600 cu ft (100'x108.9'x40')
- 100 sq ft Required per Child
- 9,000,000 cu ft (200'x150'x10')
- 20,800 cu ft (20'x100'x10')
- 10,000,000 cu ft (200'x150'x10')
- 4 Person Minimum: 16'x16'x10' per bedroom
- 384,000 cu ft (384'x100'x10')
- Gymnasium: 223,600 cu ft (86'x65'x40')
- Pool: 114,000 cu ft (95'x60'x20')
- Game Room: 22,500 cu ft (75'x30'x10')
- Locker Rooms: 19,250 cu ft (55'x35'x10')
- Playrooms: 1,920 cu ft (16'x12'x10')
<table>
<thead>
<tr>
<th>Space</th>
<th>Size/Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administration Residence</td>
<td>15,000 sq ft</td>
</tr>
<tr>
<td>Dining Room</td>
<td>90,000 cu ft (100'x60'x15')</td>
</tr>
<tr>
<td>Refridgerated Storage</td>
<td>2,000 cu ft (20'x10'x10')</td>
</tr>
<tr>
<td>Dishwashing</td>
<td>7,200 cu ft (36'x20'x10')</td>
</tr>
<tr>
<td>Lobby (Theater)</td>
<td>15,000 cu ft (100'x100'x15')</td>
</tr>
<tr>
<td>2 Art Studio</td>
<td>6,000 cu ft (20'x20'x15')</td>
</tr>
<tr>
<td>Public Bathroom</td>
<td>2,250 cu ft (15'x10'x15')</td>
</tr>
<tr>
<td>Manager's Office</td>
<td>1,200 cu ft (12'x20'x10')</td>
</tr>
</tbody>
</table>
Program block variations: axon net total (minimum requirements)
a. site buildable area
200'x450'x110' (11 stories)

b. residence area
200'x475.425' - 1 unit
(1 story tall)

c. residence area
40'x225' - 6 units
(1 story tall)

d. residence area
100'x100' - 1 unit
(5 stories tall)

e. residence area
100'x200' - 1 unit
(5 stories tall)

f. residence area
20'x450' - 1 unit
(7 stories tall)

g. residence area
20'x40' - 10 units
(7 stories tall)

h. education
50'x50' - 1 unit
(10.26 stories tall)

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site
90,000 sq ft

residence
55,085 sq ft

education
25,650 sq ft

athletics/gymnasium
16,233 sq ft

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a. site area
200'x450' - 1 unit
(2 stories tall)

b. residence area
200'x128.25' - 1 unit
(1 story tall)

c. education
50'x50' - 10 units
(1 story tall)

d. athletics/gymnasium
200'x81.165' - 1 unit
(4 stories tall)
administration residence
15,000 sq ft

administration/offices
3,600 sq ft

dining area
10,630 sq ft

din ng area
100'x106.3' - 1 unit
(1 story tall)

dining area
100'x63.73' - 2 units
(4 stories tall)

dining area
100'x63.73' - 1 unit
(6 stories tall)

dining area
200'x63.73' - 1 unit
(4 stories tall)

administrat on residence
20'x150' - 1 unit
(5 stories tall)

administrat on residence
20'x50' - 15 unit
(1 story tall)

administrat on residence
20'x50' - 1 unit
(15 stories tall)

theater/gallery/exhibition
12,746 sq ft

theater/gallery/exhibition
200'x63.73' - 1 unit
(4 stories tall)

theater/gallery/exhibition
200'x63.73' - 1 unit
(4 stories tall)

theater/gallery/exhibition
200'x63.73' - 1 unit
(4 stories tall)

theater/gallery/exhibition
50'x254.92' - 1 unit
(6 stories tall)

theater/gallery/exhibition
100'x127.46' - 1 unit
(6 stories tall)

theater/gallery/exhibition
100'x127.46' - 1 unit
(6 stories tall)

theater/gallery/exhibition
100'x127.46' - 1 unit
(6 stories tall)

theater/gallery/exhibition
100'x127.46' - 1 unit
(6 stories tall)

theater/gallery/exhibition
100'x127.46' - 1 unit
(6 stories tall)

program block variations schemes:

- site area
- site buildable area
- program occupy plinth
- occupy front (w. 122nd street)
occupy corner (riverside dr. + w. 122nd street)
plinth + edge (riverside dr. + plinth)
courtyard (occupy plinth with courtyard)